The Twelve Baseline Inventories – the Alaskan Story

By Sara Wesser

Stewardship of national park lands requires knowledge and understanding about the condition of the natural resources set aside by the American public for preservation. Having this information readily available is ever more important as we face the growing impacts of climate change, population trends, and economic pressures. The Inventory and Monitoring Program is developing a consistent set of information on the NPS natural resources for use by managers, scientists, planners, and the public. These inventories are collectively known as the Baseline Natural Resource Inventories and cover a range of features including the presence and distribution of plants, animals, and nonliving resources such as water, landforms, and climate. An important part of the program is producing information that managers need to ensure the future health of the parks in a form that can be easily accessed and understood. Each inventory follows consistent protocols and quality assurance standards, and delivers information through easily understood and accessible means. A unique Alaska solution is necessitated by the remoteness, the short growing seasons, and inclement weather that occur in these far northern parks. In addition, due to the vast extent of the NPS lands in Alaska, the inventories would need to be accomplished at a much lower cost per acre than in the rest of the country. For example, the approach to vegetation (landcover) and soils inventories is built on a foundation of remote sensing, which provides for interpolation of costly and limited field data across much broader landscapes than would otherwise be possible. Furthermore, the data collection and analysis methods integrate ecological information to maximize the information content of the digital maps and reports that are produced with each inventory.

These baseline inventories provide a snapshot in time of the condition of a park's natural resources. Combined with information from other park programs and research efforts, park managers will have access to a library of information that informs decisions, enhances planning, and enriches the public awareness of the natural world around them. Along with repeat inventories in the future, and the status and trend information derived from the Vital Signs Monitoring Program, parks will have a rich library to draw upon to preserve and protect resources for future generations.

The 12 baseline natural resource inventories:

- Automated Bibliographies
- Base Cartography Data
- Species Occurrence Inventory
- Species Distribution Inventory
- Vegetation (Landcover) Maps
- Soils Maps
- Geologic Maps
- Water Resource Inventory
- Water Chemistry Inventory
- Air Quality Inventory
- Air Quality-Related Values Assessment
- Climate Inventory

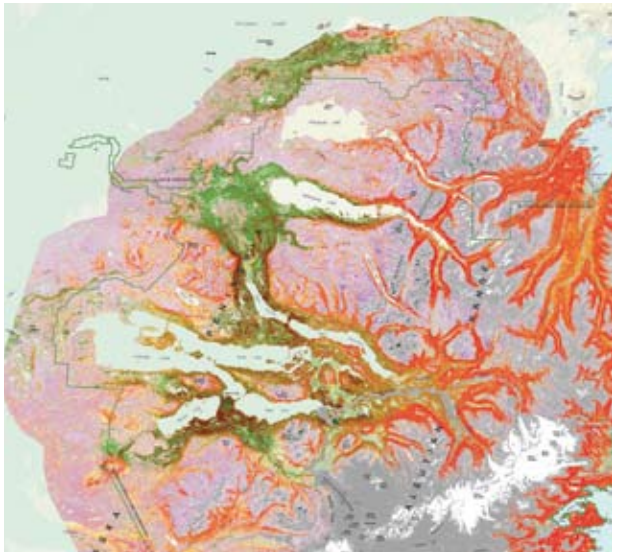

Figure 1. Portion of the Katmai National Park and Preserve landcover map.

NPS photograph

Figure 2. Visual interpretation of color infrared aerial photography provides additional information to field crews collecting data in Katmai National Park and Preserve.